

Sviridenko, F. F.

SOV/2132

25(1) PHASE I BOOK EXPLOITATION  
 Kiev, Ukrainskiy Nauchno-Issledovatel'skiy Institut metallov  
 Tekhnologiya proizvodstva i snyatava chernykh metalloiv; sbornik  
 (The Manufacture and Characteristics of Ferrous Metals; a collection  
 of articles) Khar'kov, Khar'kovskiy Gos. Univ., 1m. A.M. Gor'kogo,  
 1958, 271, 0. (Series: Itsu Trudy, vyp. 4) Errata slip in-  
 serted. 1,000 copies printed.  
 Editorial Staff of this book: P.A. Aleksandrov, D.S. Karanordskiy,  
 M.P. Leve, V.P. Onopriyenko, V.A. Tikhovskiy, and  
 Ya. A. Simeyevyi. Ed.: S.S. Liberman. Tech. Ed.: K.O. Gurin  
 The book is intended for the scientific personnel of metallurgical  
 enterprises and for engineers and technicians of metallurgical  
 institutes and other branches of the industry.

COVERAGE: The collection of articles reviews the work carried on at  
 the Institute of Metallurgy on the technology of blast furnaces, open-  
 hearth furnaces, and rolled stock production. It also deals  
 with problems in metallurgy, heat treatment of ferrous metals  
 and methods for their study. Particular attention is devoted to  
 the preparation of charges and blast furnace practice with increased  
 gas pressure, open-hearth production with oxygen blast and rolling  
 of light profiles. No personalities are mentioned.  
 accompany each article.

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## BLAST FURNACE PRODUCTION

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(12)

SOV/130-58-8-8/18

AUTHORS: Sviridenko, F.F. and Popova, A.N.

TITLE: Production of Open-hearth Phosphate Slags at the  
"Azovstal'" Works (Proizvodstvo martenovskikh fosfat-  
shlakov na zavode "Azovstal'")

PERIODICAL: Metallurg, 1958, nr 8, pp 20 - 22 (USSR)

ABSTRACT: The authors describe phosphate slag-making and crushing experience at the "Azovstal'" Works, where a 340 000-ton-a-year slag crushing plant (figure) was commissioned in 1955, slag fertiliser production being organised at the same time. They outline the influence of concentrations of acid and basic oxides in slag on its  $P_2O_5$  content and the phosphate solubility. The latter is determined after sieving through a 0.175 mm aperture screen by a method developed by the Ukrainskiy institut metallov (Ukrainian Institute of Metals) jointly with the works. The complete installation is maintained under a small suction and is provided with air cleaning filters. Data on the amounts of slag produced, its  $P_2O_5$  content and its solubility for various stages of the steel-melting process are tabulated for a heat in which ore with 7%  $SiO_2$  and pig iron with 0.4% Si were used. The data show that production of slag

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Production of Open-hearth Phosphate Slags at the "Azovstal'" works

with over 10%  $P_2O_5$  amounted to 16.9% of the steel melted.

Actual production is considerably less than that calculated after allowing for scrap. The 1956 and 1957 figures for phosphate slag wool were 8.8 and 9.4%, respectively, of steel weight, the corresponding solubility figures being 12.97 and 11.85. The authors list some reasons for these differences. There are 1 figure and 1 table.

1. Slags--Production 2. Slags--Materials 3. Slags--Production  
4. Phosphates--Applications

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133-58-4-7/40

AUTHORS: Bul'skiy, M.T., Sviridenko, F.F. and Berilov, N. T.,  
Engineers

TITLE: The Use of Ore Briquettes During Smelting of High  
Phosphorus Pig Iron (Primeneniye rudnykh briketov  
pri peredele vysokofosforistykh chugunov)

PERIODICAL: Stal', 1958, Nr 4, pp 303-306 (USSR)

ABSTRACT: On smelting high-phosphorus iron in open hearth furnaces  
the proportion of silica in slag has an important influence  
on the deporphorisation process. The relationship can be  
expressed by the following empirical equation:

$$(P_2O_5) = \frac{300}{(SiO_2) + 8.1}$$

Statistical analysis of the works' records indicated that  
about 50 to 60% of total silica in slag was introduced with  
iron ore. As there was a shortage of low silica lump ore,  
experiments were carried out on the application for this  
purpose of briquettes made from low silica, iron rich,  
dusty ores. Five heats were carried out in which briquettes  
containing 5% of silica and 64.6% of total iron were used

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133-58-4-7/40

The Use of Ore Briquettes During Smelting of High Phosphorus Pig Iron

and for comparison on the same furnaces, normal heats were carried out in which ore containing 7.2% of silica was used. Main technological indices on both groups of heats are shown in Table 1. A decrease in silica concentration in heats with briquettes increased the concentration of  $P_2O_5$  in slag and decreased the phosphorus concentration in the metal. The duration of the melting period decreased by 20 min., and refining and tapping by 32 min. However, on increasing the intensity of blowing oxygen into the bath to 1250 m<sup>3</sup>/hr the increase of concentration of CaO in slag, lags behind the increase in temperature (Fig.3). An increase of limestone to the charge did not increase the lime concentration in slag during the first two hours of the melting period. Therefore, further experiments (8 heats of rail steel and 4 heats of rimming steel) were carried out with briquettes containing limestone (Table 2). Main technological indices for the three corresponding groups of heats are given in Table 3. Mean duration of heat was decreased by 2 hours. Providing briquettes were well heated

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133-58-4-7/40

The Use of Ore Briquettes During Smelting of High Phosphorus Pig Iron

high concentrations of CaO and low concentrations of FeO. Under these conditions the bath was blown with oxygen for 1 hour 15 min (1240 m<sup>3</sup>/hr). After 3 hours slag contained 38.6% CaO and 18.6% P<sub>2</sub>O<sub>5</sub> and the metal only 0.32% of phosphorus (Figs. 4 and 5). It is concluded that the use of briquettes from rich ores considerably improves the dephosphorisation process and decreases the duration of the heat. The following participated in the work: A. G. Kotin and Ya. A. Shneyerov, Candidates of Technical Science (Ukrainian Scientific-Research Institute of Metals), Ye. V. Tret'yakov, K.A. Tikhomirova and A.G. Alimov, Engineers and G. N. Oyks, Professor, Doctor of Technical Science.

There are 3 tables and 5 figures.

ASSOCIATION:"Azovstal'" Zavod (Azovstal' Works)

- Card 3/3      1. Iron--Production    2. Iron ores--Processing    3. Iron ores--Melting  
                  4. Iron ores--Purification    5. Slags--Properties

SVIRIDENKO, F.F.

133-58-4-8/40

AUTHORS: Raspopov, I. V. Docent and Gorbanev, Ya. S. and  
Sviridenko, F. F., Engineers

TITLE: The Use of a High Basicity Sinter for Smelting  
Phosphorus Pig Iron (Primeneniye aglomerata vysokoy  
osnovnosti pri peredele fosforistykh chugunov)

PERIODICAL: 'Stal', 1958, Nr 4, pp 306-311 (USSE)

ABSTRACT: The use of a high basicity sinter for the intensification of the process of removal of phosphorus during the melting period was tested in the open hearth melting shop of the Azovstal' Works when smelting rail steel. Chemical composition and size distribution of raw materials used for the production of sinter - Table 1, characteristics of sinter produced under laboratory conditions - Table 2 and that produced under industrial conditions - Table 3 (sinter basicity up to 14.3). Changes in the composition of metal and slag in the course of heat when using high phosphorus iron and fluxed sinter are shown in Fig.3, similar changes when using ore - Fig.1. The comparison of operating indices of open hearth heats carried out with the use of sinter and ore are given in Table 4.

Conclusions: The production of sinter with a wide range of

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\* The Use of a High Basicity Sinter for Smelting Phosphorus Pig Iron

fluxing from rich in iron and low-silica materials is possible. The melting temperature of fluxed sinter is considerably lower than the unfluxed sinter and in particular of that of raw ore. The use of highly fluxed sinter during smelting high phosphorus pig iron decreases the duration of the heat on average by one hour, 23 mins, and permits a substantial increase of the concentration of phosphorus in the slag. The increase of the cost of the mineral part of the charge is compensated by the increasing yield of steel. The productivity of open hearth furnaces increases by 9%. The following participated in the work: Professor I. G. Kazantsev, and Engineers: M. T. Bul'skiy, P. N. Slepkanev, A. G. Alimov, Ye. V. Tret'yakov and a research group of the Ukrainian Scientific Research Institute of Metals.

There are 4 tables, 3 figures and 4 references, all of which are Soviet.

ASSOCIATIONS: Zhdanovskiy metallurgicheskiy institut  
(Zhdanov Metallurgical Institute) and Zavod "Azovstal'"  
(Azovstal' Works)

Card 2/2

1. Sintered iron--Effectiveness    2. Steel--Manufacture    3. Slags  
--Properties

SOV/133-58-8-18/30

AUTHORS:

Sviridenko, F.F., Popova, A.N. and Fradina, M.G.  
The Influence of an Increased Arsenic Content on the  
Ductility of Rail Steel (Vliyanie povyshennogo soder-  
zhaniya mysh'yaka na kopravuju vyazkost' rel'sovoy stali)

PERIODICAL: Stal', 1958, Nr 8, pp 739 - 741 (USSR)

ABSTRACT: As the steel manufactured on the "Azovstal'" Works contains up to 0.15% of As, in order to establish the influence of a higher arsenic content on the properties of rails, special rails containing from 0.18 to 0.30% of arsenic were made. Alloying with arsenic was done with arsenic-iron briquettes added to ingot moulds. The composition of steel: C 0.67-0.82, Mn 0.68-0.97, Si 0.16-0.25, S 0.013-0.032, P 0.020-0.038%. All experimental ingots were rolled into rails by the usual technology without encountering any difficulties. The distribution of As content along the length of rails - Table 1; the As content in the rails from top and bottom part of ingots - Table 2; mechanical properties of rails with an increased (A) and normal (B) arsenic content - Tables 3, 4 and 5. It is concluded that an increase of arsenic content from 0.13 to 0.25% has no practical

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The Influence of an Increased Arsenic Content on the Ductility of  
Rail Steel

SOV/133-58-8-18/30

influence on the impact strength of rail specimens on  
ageing of up to 9 months. There are 5 tables and 2 Soviet  
references.

ASSOCIATIONS: Zavod "Azovstal'" ("Azovstal'" Works) and  
Ukrainskiy institut metallov (Ukrainian Institute  
of Metals)

1. Steel--Mechanical properties    2. Arsenic--Metallurgical  
effects

Card 2/2

BUL'SKIY, M.T., inzh.; SVIRIDENKO, F.F., inzh.; BIRILOV, N.T., inzh.

Using ore briquets in refining highly-phosphorus pig iron (with  
summary in English). Stal' 18 no.4:303-306 Ap '58. (MIRA 11:5)

1. Zavod "Azovstal'."  
(Open-hearth process) (Briquets)

RASPOPOV, I.V., dots.; GORBANEV, Ya.S., inzh.; SVIRIDENKO, F.F., inzh.

Using high basicity sinters in refining phosphorus pig iron (with  
summary in English). Stal' 18 no.4:306-311 Ap '58. (MIRA 11:5)

1. Zhdanovskiy metallurgicheskiy institut i zavod "Azovstal'".  
(Open-hearth process) (Sintering)

PHASE I BOOK EXPLOITATION SOV/3607

Sviridenko, Fedor Fedorovich, and Nikolay Titovich Berilov

Sovershenstvovaniye tekhnologii proizvodstva stali (Improvement in the Steelmaking Process) [Stalino] Stalinskoye oblastnoye knizhnoye izd-vo, 1959. 64 p. 1,500 copies printed.

Ed.: F. Burlyga; Tech. Ed.: A. Samoletova.

PURPOSE: This booklet is intended for technical personnel in metallurgical plants.

COVERAGE: The book deals with methods and equipment developed and used by the Zhdanov "Azovstal'" Plant for the open-hearth production of steel from phosphorus pig irons. Improved tilting-type furnaces, special-quality charge materials, and the design of a new charging machine are discussed. Several observations on the history of steelmaking are made in the Introduction by Professor K.G. Trubin. There are 8 references, all Soviet.

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Svirdenkov, F.F.

18(0) PHASE I BOOK EXPLOITATION SOV/2125  
 Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.  
 Institut Metallovedeniya i fiziki metallov  
 Problemy metallovedeniya i fiziki metallov (Problems in Physical  
 Metallurgy and Metallophysics) Moscow, Metallurgizdat, 1959.  
 590 p. (Series: It: Sbornik trudov, 6) Errata slip inserted.  
 3,600 copies printed.

Additional Sponsoring Agency: USSR. Gosudarstvennaya planova komissiya.

Ed. of Publishing House: Ye. N. Berlin; Tech. Ed.: P. G. Islemt Yava;  
 Editorial Board: D.S. Kamenetskaya, B.Ya. Lur'e, (Rep. Ed.)  
 Ye.Z. Spaktor, I.M. Uversky, L.A. Shvartsman, and V.I. Mal'kin.

PURPOSE: This book is intended for metallurgists, metallurgical  
 engineers, and specialists in the physics of metals.

COVERAGE: The papers in this collection present the results of  
 investigations conducted between 1954 and 1956. Subjects  
 covered include crystallization of metals, physical methods of  
 influencing the processes of crystallization, problems of  
 physical chemistry of metallurgical processes, problems in the  
 development of new methods and equipment for investigating metals,  
 and production control. References follow each article.

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COVERED: The papers in this collection present the results of  
 investigations conducted between 1954 and 1956. Subjects  
 covered include crystallization of metals, physical methods of  
 influencing the processes of crystallization, problems of  
 physical chemistry of metallurgical processes, problems in the  
 development of new methods and equipment for investigating metals,  
 and production control. References follow each article.

#### TABLE OF CONTENTS:

#### PART I. CRYSTALLIZATION OF METALS

Osiptov, A.I., L.A. Shvartsman, V.Ye. Rudini, and M.L. Sazonov.  
 On the Uniform Distribution of a Small Addition in the Slag  
 During the Production of Steel in a 350-ton [Open-hearth]  
 Furnace

The distribution process was studied with the use of a radio-  
 active isotope ( $\text{Ca}^{45}$ ). It was shown that the process of  
 diffusion of a substance in slag takes place at a consider-  
 ably slower rate than in metal.

Shvartsman, L.A., A.I. Osiptov, V.I. Alekseyev, V.P. Surov,  
 M.L. Sazonov, M.N. Bulavskiy, S.A. Telecov, A.M. Skrobintsev,  
 A.M. Orlovsandens, L.G. Gol'dstein, and P.P. Svirdenkov.  
 Investigation of the Kinetics of Scrap Melting in the  
 Saratov Process

A method for determining the speed of melting scrap in  
 an open-hearth furnace in the scrap form process was  
 developed on the basis of this investigation. The method  
 is based on a spectroscopic dilution using radioactive cobalt.  
 It was shown that the melting speed depends on the duration  
 of the pig iron pouring process and carbon content in the  
 bath.

Shupar', S.M. Investigation of the Transfer of Sulfur from  
 the Gas Phase to the Bath in the Basic Open-hearth Furnace  
 from the most intensive during the loading of the  
 metallic portion of the charge. The speed of sulfur absorption  
 during this period is 17-25 percent per hour, during pre-  
 heating 8-11 percent, and during final melting 3-7.5 percent.  
 Percentage is based on the sulfur content in the metal.

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SVIRIDENKO, F.F.

SOV/130-59-1-8/21

AUTHORS: Skoblo S.Ya., Kazachkov Ya.A., Pereverzeva Ye.O.,  
Kir'yushkin Yu.I., Strakhov V.O., Sviridenko F.F.,  
Bil'skiy N.I., and Alimov A.O.

TITLE: Quality of a Rail-Steel Ingot weighing 9.75 Tonnes  
(Kachestvo slitkogo ral'sovoy stali vesom 9.75 t)

PERIODICAL: Metallurg, 1959, Nr 1, p 19 (USSR)

ABSTRACT: At the "Azovstal'" works rail-steel ingot weight has been increased for 6.6 to 9.75 tonnes to increase casting-pit capacity and improve the utilization of rolling mill capacity. The authors give a brief description of the results of comparative investigations of large and small ingots. The quality was evaluated from sulphur prints of longitudinal ingot sections, from the macro-structure (with deep etching) of transverse strips, differences in the etching of samples from different zones of the ingot and distribution of segregated impurities and non-metallic inclusions in the ingot. Among the conclusions drawn are that the two ingot types are equal in physical,

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structural and chemical heterogeneity, the non-metallic inclusions in the large ingot do not exceed those in a sound 4.0-tonne rail-steel ingot; the amount of non-metallic inclusions, which greatly affect the mechanical properties, can be reduced by careful preparation of runner and ladle.

ASSOCIATION: Zhdanovskiy metallurgicheskiy institut (Zhdanov metallurgical institute) and the "Azovstal'" works

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18(3)

AUTHORS: Kazachkov, Ye. A., Sviridenko, F. F. SOV/163-59-2-7/48

TITLE: The Temperature Conditions of the Tank in the Period of Basic Addition in Dephosphorization (Temperaturnyy rezhim vanny v period dovodki pri fosforistom peredele)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Metallurgiya, 1959,  
Nr 2, pp 38 - 42 (USSR)

ABSTRACT: In the processing of cast iron with a high phosphorus content, the principal quantity of phosphorus is eliminated from the cast iron during the melting process. The slag produced is poured off, and an admixture of ore, bauxite, lime and scale is added to eliminate the remaining phosphorus. The addition of these large quantities leads to a temperature drop from  $1565^{\circ}$  to  $1525^{\circ}$ , as is shown in figure 1, which indicates the average values of 30 measurements. If the temperature was too low before the admixture, an undercooling is generated (Fig 2), the carbon burns too slowly, and the metal becomes inferior in quality, as is proved by the statistic evaluation of 294 rail-steel melts. Figure 3 shows the dependence of the temperature rise on the combustion rate of carbon; figure 4

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The Temperature Conditions of the Tank in the Period SOV/163-59-2-7/48  
of Basic Addition in Dephosphorization

shows the influence of the thickness of the slag layer on the carbon combustion and the temperature rise. The pouring-off of the slag speeds up the carbon combustion. Although the temperature must not rise too much to avoid a reduction of the  $P_2O_5$ , it should nevertheless be kept between 1550 - 1570° in the melting process of rail steel. There are 4 figures and 5 Soviet references.

ASSOCIATION: Zhdanovskiy metallurgicheskiy institut  
(Zhdanov Metallurgical Institute)

SUBMITTED: September 15, 1958

Card 2/2

S/137/61/000/011/022/123  
A060/A101

AUTHORS: Skrebtsov, A. M., Sviridenko, F. F., Kostyuk, V. A., Popova, A. N.

TITLE: Determination of the quantity of nonmetallic impurities in rail steel by the use of radioactive isotopes

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 11, 1961, 3<sup>4</sup>, abstract 11V210 (V sb.: "Radioakt. izotopy i yadern. izlucheniya v nar. kh-ve SSSR. v. 3", Moscow, Gostoptekhizdat, 1961, 200 - 202)

TEXT: A study was made of the contamination of metal by exogenous non-metallic impurities falling into the metal from the furnace slag, the shrink-hole charge of the ingot head, the refractory putty of the head extension piece, dust in the steel-pouring ladle, the refractory clog of the steel-pouring tap. Preparations of radioactive isotopes of Ca<sup>45</sup>, Ba<sup>131</sup>, Sr<sup>89</sup>, Pb<sup>32</sup> were dissolved in HNO<sub>3</sub> and this solution was used to soak the refractory substances which were being introduced into the metal in the course of tapping or pouring. After the rails were rolled, templets were taken for the radiographic investigation of the presence of nonmetallic impurities. The radiography was carried out on X-ray film XX with exposure-time of 60 days. The contamination by the furnace slag was

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Determination of the...

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A060/A101

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studied with the aid of isotope Sr<sup>89</sup> in the amount of 300 millicuries, introduced into the furnace during the time of pure ebullition. Dispersed nonmetallic impurities, whose area could not be measured, were discovered in finished rails. The investigation of the possibility of contaminating the steel by putty was carried on by means of isotope Ca<sup>45</sup> in the quantity of 75 millicuries. Templets were taken of the rails every two meters. In 24 out of the 52 templets nonmetallic impurities were discovered. In all, as result of putty crumbling 9.1% is left in the metal in the form of nonmetallic impurities. In the same manner it was discovered that the shrink-hole charge is absorbed up to the middle of the ingot, and it may remain in the metal in the form of exogenous nonmetallic impurities. It was discovered that 11 - 14% of the refractory powder from the ladle is mechanically "entrapped" in the steel. The mean content of nonmetallic impurities in rail steel is 0.00012 grams per gram of steel, 1 - 2.5% of which quantity consisting of impurities tagged with radioactive isotopes.

Yu. Nechkin

[Abstracter's note: Complete translation]

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SVIRIDENKO, F.F., inzh.; POPOVA, A.N., inzh.; FRADINA, M.G., inzh.;  
CHERNOVA, A.V., inzh.; TARASOVA, L.P., inzh.

Experimental production of 10-ton rail ingots. Stal' 20  
no.8:699-701 Ag '60. (MIRA 13:7)

1. Zavod "Azovstal'." (Steel ingots)

BOL'SHAKOV, L.A., kand.tekhn.nauk; BUL'SKIY, M.T., inzh.; TURCHENKOVA, Ye.K.,  
inzh.; YEGNUS, R.M., inzh.; SVIRIDENKO, F.F., inzh.; TARASOVA, L.P.,  
inzh.; SLEPKANEV, P.N., inzh.; GAVAIKOV, V.Z., inzh.

Efficient design of large rail ingot molds. Stal' 20 no.9:793-797  
(MIRA 13:9)  
S '60;

1. Zavod "Azovstal'" i Zhdanovskiy metallurgicheskiy institut.  
(Ingot molds)

SHNEYEROV, Ya.A.; LEPORSKIY, V.V.; KAZARNOVSKIY, D.S.; KOTIN, A.G.; KURMANOV,  
M.I.; SUKACHEV, A.I.; SLADKOSHTEYEV, V.T.; BUL'SKIY, M.T.; SVIRIDENKO,  
F.F.; Sidel'kovskiy, M.P.; KOZHEVNIKOV, I.Yu., red.; BORODAVKIN, M.L.,  
red. izd-va; ISLEN'TYEVA, P.G., tekhn. red.

[Converting phosphorous cast iron in open-hearth furnaces] Peredel fos-  
foristykh chugunov v martenovskikh pechakh. Moskva, Gos. nauchno-  
tekhn. izd-vo po chernoi i tsvetnoi metallurgii, 1961. 256 p.  
(MIRA 14:8)

(Open-hearth process)

SVIRIDENKO, FF.

S/137/62/000/001/005/237  
A060/A101

AUTHORS: Bul'skiy, M.T., Val'ter, O.I., Skrebtsov, A.M., Kostyuk, V.A.,  
Sviridenko, F.F., Cherepivskiy, A.A.

TITLE: Use of radioactive isotopes for the investigation of the production  
technology at the Azovstal' plant

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 1, 1962, 6, abstract 1V41  
(v sb. "Radioakt. izotopy i yadern. izlucheniya v nar. kh-ve SSSR,  
v. 3", Moscow, Gostoptekhizdat, 1961, 130 - 132)

TEXT: The authors consider the problem of applying radioactive isotopes  
in the blast-furnace, open-hearth furnace, rolling practice. The most important  
researches carried out at the plant were: 1) the study of the operation of open-  
hearth furnaces when the liquid finishing slag from the preceding heat was left  
in the furnace; 2) the study of the expediency of using incompletely burned  
lime instead of limestone in the charge of open-hearth furnaces; 3) the study  
of the quantity of slag during the pure ebullition period of the vat upon the

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Use of radioactive isotopes ...

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A060/A101

quality of the steel smelted; 4) the determination of the quantity of exogeneous nonmetallic impurities in rail steel. The utilization of radioactive isotopes for  $\gamma$ -ray defectoscopy is described.

N. Yudina

[Abstracter's note: Complete translation]

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S/130/61/000/005/003/005  
A006/A101

AUTHORS:

Sviridenko, F. F., Kazachkov, Ye. A., Vasil'kovskaya, N. P., Lesenko, I. I.

TITLE:

Riser with an air gap in the wall

PERIODICAL:

Metallurg, no. 5, 1961, 15 - 18

TEXT:

Risers used at "Azovstal'" for delayed cooling of feed head metal, are lined with chamotte bricks. The lining is 120 mm thick. Heat insulating conditions can be improved by employing insulated bricks, and the best means of insulation for this purpose is air. Investigations were made to use the heat insulating properties of an air gap in the lining of risers. The use of shaped bricks, which is the simplest method employed at the KMK, was not possible at Azovstal' due to the lack of a ceramic shop. Therefore, standard brick dimensions and shapes had to be employed. The existing design of risers was modified by two methods: 1. In the shell of a conventional riser, 8 - 10 mm thick steel sheets were inserted and fastened by electric welding process in such a manner, that an internal shell was formed that was separated from the external shell by a 70 mm wide gap. The gap was lined with chamotte bricks. 2) A special riser was employed with horizontal ribs in the center of the shell height, supporting

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A006/A101

Riser with an air gap in the wall

Improved heat insulation reduces the metal volume in the feed head and increases the ingot weight. The upper section of the ingot which is most contaminated with non-metallic impurities, can thus be cut off. Experimental castings made with the new risers showed satisfactory results. However, their large-scale production was impeded by the low stability of the lining. Therefore, a new variant of the risers was designed (Figure 3) where the uniform suspension of the ingot over the whole perimeter of the mold and riser butt line, is assured by an excess of the cross section of the riser (885 x 790) over that of the mold (865 x 770). Grooves, 50 mm wide, in the riser shell prevent the falling out of the upper rows of the lining, and 50 mm - diameter apertures are provided in the walls for the elimination of gases from internal cavities. Experiments showed that risers lined with straight bricks were not less stable than those lined with shaped bricks. Their use will reduce rejects due to contaminations with non-metallic impurities. There are 3 figures.

ASSOCIATION: Zavod "Azovstal'" (Azovstal' Plant); Zhdanovskiy metallurgicheskiy institut (Zhdanov Metallurgical Institute).

Card 3/4

60

KAZARNOVSKIY, D.S.; DYUBIN, N.P.; GERSHGORN, M.A.; KRAVTSOVA, I.P.;  
KLIMOV, K.N.; RUDOL'SKIY, N.L.; FRADIN, M.D.; SVIRIDENKO, F.F.;  
FRADINA, M.G.; ZANNES, A.N.; CHERNOVA, A.V.

Experimental railroad rails made of chromium-nickel native  
alloy steel. Stal' 22 no.6:543-550 Je '62. (MIRA 16:7)

1. Ukrainskiy nauchno-issledovatel'skiy institut metallov i  
zavod "Azovstal'".

(Chromium-nickel steel)  
(Railroads--Rails)

SVIRIDENKO, F.F.; KIRYUSHKIN, Yu.I.; KAZACHKOV, Ye.A.; LESENKO, I.I.

Riser head with a two-layer lining. Metallurg 8 no.2:20  
(MIRA 16:2)  
F '63.

1. Azovskiy staleplavil'nyy zavod im. Sergo Ordzhonikidze  
v Zhdanove i Zhdanovskiy metallurgicheskiy institut.  
(Steel ingots)

SVIRIDENKO, F.F., inzh.; KRIVENKO, P.T., inzh.; VISTOROVSKIY, N.T., inzh.

Characteristics of the procedure for converting phosphorous  
pig iron in redesigned open-hearth furnaces operating on natural  
gas. Stal' 23 no.8:700-704 Ag '63. (MIRA 16:9)  
(Steel--Metallurgy)  
(Open-hearth furnaces--Design and construction)

LEPORSKIY, V.V., inzh.; BUL'SKIY, M.T., inzh. [deceased]; SVIRIDENKO, F.F.,  
inzh.; VISTOROVSKIY, N.T., inzh.

Rapid filling of the riser-head part of ingots. Stal' 23 no.3:  
705-706 Ag '63. (MIRA 16:9)

1. Metallurgicheskiy zavod "Azovstal'."  
(Steel ingots)

BOL'SHAKOV, L.A., kand.tekhn.nauk; YEGNUS, R.M., inzh.; SVIRIDENKO, F.F.,  
inzh.; BALABANOV, A.Kh., inzh.

Effectiveness in the use of lightweight, solid-bottom ingot molds.  
Stal' 23 no.8:712-713 Ag '63. (MIRA 16:9)

1. Zhdanovskiy metallurgicheskiy institut i metallurgicheskiy zavod  
"Azovstal'".

(Ingot molds)

TARASOVA, L.P., inzh.; KALASHNIKOV, A.G., inzh.; DOLINENKO, O.V., inzh.;  
NAZARENKO, Ye.T., inzh.; BUL'SKIY, M.T., inzh. [deceased];  
~~SVIRIDENKO, F.F., inzh.~~; Prinimali uchastiye: LAPINA, A.M., inzh.;  
~~KORNIYENKO, D.I., inzh.~~

Nonmetallic inclusions in rail steel. Stal' 23 no.8:738-740  
Ag '63. (Railroads--Rails) (Steel--Inclusions) (MIRA 16:9)

KAZACHKOV, Ye.A.; KIRYUSHKIN, Yu.I.; SKOBLO, S.Ya.; BUL'SKIY, M.T. [deceased];  
SVIRIDENKO, F.F.; SAPELKIN, N.F.

Formation and heterogeneity of rail ingots cast in ingot molds  
with a varying wall thickness. Izv. vys. ucheb. zav.; chern.  
met. 7 no.11:75-80 '64. (MIRA 17:12)

1. Zhdanovskiy metallurgicheskiy institut.

DERFEL', A.G.; KRAVTSOVA, I.P.; DYUBIN, N.P.; SVIRIDENKO, F.F.; POPOVA, A.N.;  
DOLINENKO, O.V.; SHAROV, B.A.; Prinimali uchastiye: DYUBINA, A.V.;  
TARASOVA, L.P.; LESENKO, I.I.; LEVCHENKO, N.D.; BONDARENKO, A.V.

Using ferrotitanium for the deoxidation of rail steel and  
its properties. Sbor. trud. UNTIM no.11:365-378 '65.  
(MIRA 18:11)

KAZARNOVSKIY, D.S., doktor tekhn. nauk; GERSHGORN, M.A., inzh.; SVIRIDENKO,  
F.F., inzh.; KRAVTSOVA, I.P., inzh.; SHNAPERMAN, L.Ya., inzh.

Development, adoption, and introduction of a low-alloy steel  
for heavy type railroad rails. Stal' 25 no.4:355-357 Ap '65.  
(MIRA 18:11)

1. Ukrainskiy nauchno-issledovatel'skiy institut metallov i  
zavod "Azovstal'".

DYUBIN, N.P.; DYUBINA, A.V.; SVIRIDENKO, F.F.; KARPUNIN, A.M.; Prinimali  
uchastiye: LEVCHENKO, N.D.; POPOVA, N.N.; TROFIMOV, V.V.;  
SHUBENKO, G.L.; CHETVERIKOV, A.V.; RYABININ, N.G.; ZEMLYANSKAYA,  
L.I.; FRADINA, M.G.; ORGIYAN, V.S.; SABUTSKIY, F.M.; MOMGELI, A.V.;  
BUL'SKIY, M.T.; FRADIN, M.D.; VALENKO, N.S.; KUCHERYAVYY, Yu.P.;  
CHEPELEV, P.M.; SABUROV, T.A.; POLYAKOV, P.M.; MALASHENKO, R.B.

Effect of the temperature of rail rolling on their quality.  
(MIRA 18:11)  
Sbor. trud. UNIIM no.11:344-353 '65.

GERSHGORN, M.A.; SVIRIDENKO, E.F.; KAZARNOVSKIY, D.S.; KRAVTSOVA, I.P.;  
POPOVA, A.N.; FRADINA, M.G.; Prinimali uchastiye: LUKASHOV, G.G.;  
RUDOL'SKIY, N.L.; SIEPKANEV, N.P.; PLISKANOVSKIY, S.T.; GOREAEV,  
Ya.S.; BUL'SKIY, M.T. [deceased]; ARKHANGEL'SKIY, Yu.N.; SHAROV,  
B.A.; VISTOROVSKIY, N.T.; RAKHANSKIY, B.I.; SAPOZHKOVS, V.Ye.;  
RYABININ, N.G.; KARAKULINA, R.R.; FADEYEVA, A.M.; ZVEREV, D.A.

Improving the production of high-strength rails by alloying  
them with granulated ferrochromium in the ladle. Stal' 25  
(MIRA 18:6)  
no.5:408-411 My '65.

1. Ukrainskiy nauchno-issledovatel'skiy institut metallov i zavod  
"Azovstal'".

SVIRIDENKO, G.; TONKOV, A.A., kapitan 2 ranga, redaktor; KAZAKOVA, V.Ye.,  
tekhnicheskiy redaktor

[Love the sea and service in the navy] Liubite more i voenno-  
morskuiu sluzhbu. Moskva, Voen. izd-vo Ministerstva obrony SSSR,  
1954. 125 p.  
(Russia--Navy)

SVIRIDENKO, G.

Organize the trade serving the workers and passengers in rail transportation. Sov.torg.no.1:46-47 Ja '57. (MLRA 10:2)

1. Nachal'nik Ursy L'vovskoy zheleznoy dorogi.  
(Retail trade) (Railroads--Passenger service)

SVIRIDENKO, I., inzh.

Weakening the field of traction motors with series excitations.  
Zhil-komm. khoz. 9 no.3:15-16 '59. (MIRA 12:5)  
(Electric motors) (Street-railways)

84231

S/089/60/009/004/011/020  
B006/B070

11/9200

AUTHORS:

Subbotin, V. I., Ushakov, P. A., Sviridenko, I. P.

TITLE:

Investigation of Heat Exchange in a Turbulent Flow of  
Mercury in an Annular Gap

PERIODICAL: Atomnaya energiya, 1960, Vol. 9, No. 4, pp. 310 - 312

TEXT: The authors of the present "Letter to the Editor" studied the heat transfer to mercury flowing turbulently in a narrow annular gap. In the introduction, the experimental apparatus, which was made of carbon steel, is described, and the experimental dimensions are given. Temperature was measured by thermocouples. The experiments were made for a flow velocity of mercury of between 0.3 and 3.8 m/sec at temperatures 30 - 40°C, and a heat flow  $q$  of  $25 \cdot 10^{-3}$  to  $75 \cdot 10^3$  kcal/m<sup>2</sup>·hour. The heat-transfer coefficients were measured after their stabilization along the channel. The maximum error in the heat-transfer measurement for the second experimental dimensions (400 mm long, gap width 2 mm) was 16 and 30%, respectively, for one- and two-sided heating. The accuracy for the first

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Investigation of Heat Exchange in a Turbulent  
Flow of Mercury in an Annular Gap

84231  
S/089/60/009/004/011/020  
B006/B070

experimental dimensions (1,000 mm, gap width 1 mm) was somewhat lower. The experiments showed first that the flexures of the inner tube ( $d_2/d_1 = 1.05$ ) had a significant effect on the temperature field. This shows that in designing heat exchangers the effect of channel deformations may not be neglected. The most important results were obtained for the second experimental dimensions for which channel deformations could be practically excluded. Fig. 1 shows the temperature distribution along the

gap for  $q = 50 \cdot 10^3 \text{ kcal/m}^2 \cdot \text{hour}$ ; Fig. 2 shows a comparison between the experimental results and calculations according to semi-empirical formulas; Fig. 3 gives a comparison of the experimental results by the present authors with the experimental results of other authors. The experimental results are summarized as follows: 1) For two-sided heating of a gap with  $d_2/d_1 \leq 1.09$  and for equality of the heat flows from both heat-emitting surfaces to the mercury, the heat transfer is about double as much as for a one-sided heating (Fig. 2). Therefore, the use of the hydraulic diameter  $d_h$  as a characteristic dimension does not automatically take into account the specialities of heat transfer to liquid metals for a

Card 2/3

USHAKOV, P.A.; SUBBOTIN, V.I.; GABRIANOVICH, B.N.; TALANOV, V.D.;  
SVIRIDENKO, I.P.

Heat transfer and hydraulic resistance of close-packed bundles  
of rods arranged in-line. Atom. energ. 13 no.2:162-169 Ag  
'62. (MIRA 15:8)

(Heat--Transmission) (Nuclear reactors)

SVIRIDENKO, I.P.

AID Nr. 987-3 11 June

HEAT TRANSFER OF LIQUID METALS IN PIPE FLOW (USSR)

Subbotin, V. I., P. A. Ushakov, B. N. Gabrianovich, V. D. Talanov, and I. P.  
Sviridenko. Inzhenerno-fizicheskiy zhurnal, v. 6, no. 4, Apr 1963, 16-21.

S/170/63/000/004/002/017

The Institute of Physics and Power Engineering Institute in Obninsk studied heat transfer from Hg at 18 to 60°C and from NaK alloy (22% Na, 78% K) at 70 to 110°C. Three test sections were used. The first consisted of a polished steel tube (20-mm diameter, 0.3-mm wall thickness) to which copper rings (43-mm diameter) were welded at 1-mm intervals. The thermocouples were located inside the copper rings. The second section contained a nickel tube (12-mm diameter, 0.4-mm wall thickness) also equipped with copper rings. The third section consisted of a machined copper tube with a 40-mm outer and a 20.8-mm inner diameter. Two series of experiments were conducted with NaK: 1) at  $470 < Pe < 7900$ , with oxide contents in the metal ranging from  $3 \cdot 10^{-5}$  to  $7 \cdot 10^{-4}$  wt %; 2) at  $107 < Pe < 640$ , with oxide contents of  $1 \cdot 10^{-5}$  to  $5 \cdot 2 \cdot 10^{-3}$  wt %. The results showed that the Nusselt number for Hg in nickel and steel tubes and for NaK in copper tubes is identical. This indicates

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AED Nr. 987-31 11 June

HEAT TRANSFER OF LIQUID METALS IN PIPE FLOW [Cont'd] S/170/63/000/004/002/017

that thermal contact resistance is practically absent under the conditions studied. Oxides in concentrations from  $3 \cdot 10^{-4}$  to  $5 \cdot 10^{-3}$  wt % did not affect heat transfer in NaK. The following formula is recommended at  $0.002 \ll Pr \ll 0.003$  and  $20 \ll Pe \ll 1000$  for metals containing oxides in concentrations below the solubility limit:  $Nu = 4.3 + 0.025 Pe^{0.8}$ . [PV]

Card 2/2

SVYATOVIC, I.S., Cand Tech Sci—(diss) "Study of methods of  
reduction of the field of electric traction engines of con-  
ductive excitation <sup>W</sup> for urban electric transport." Mos, 1959.  
15 pp (Academy of Communal Economy im K.D. Panfilov), 150 co-  
pies (zh,29-59, 129)

-35-

YAKOVLEV, A.I.; SVIRIDENKO, I.S.; AKSENOV, M.I.

Testing new streetcars and trolley buses. Sbor.nauch.rab.AKKH  
(MIRA 16:4)  
no.13:138-146 '62.  
(Streetcars--Testing) (Trolley buses--Testing)

YAKOVLEV, A. I., kand. tekhn. nauk; SVIRIDENKO, I. S., kand. tekhn.  
nauk; KOZLOVSKIY, A. B.

Characteristics of the performance of power transmissions in  
case of a joint and separate electric drive. Avt. prom. 29  
no. 5:31-33 My '63. (MIRA 16:4)

1. Gosudarstvennyy soyuзnyy ordena Trudovogo Krasnogo Znameni  
nauchno-issledovatel'skiy avtomobil'nyy i avtomotornyy institut  
i Akademiya kommunal'nogo khozyaystva.

(Motor vehicles—Power transmissions)  
(Electric driving)

SVIRIDENKO, Kim Ivanovich; CHMIL', L.N., red.

[Working time, working area] Rabochee vremia, rabochee  
mesto. Khar'kov, Khar'kovskoe knizhnoe izd-vo, 1963. 19 p.  
(MIRA 17:9)

1. Master smery kommunisticheskogo truda Khar'kovskogo  
traktornogo zavoda imeni Ordzhonikidze (for Sviridenko).

SAPKO, A.I.; SVIRIDENKO, L.G.; DOBROV, V.P.; GIADKIY, D.F.; BUZUNOV, I.S.;  
PICHAK, G.V.

Remote control of steel-pouring ladle plugs. Metallurg  
(MIRA 15:7)  
7 no.6:18-21 Je '62.

1. Dnepropetrovskiy metallurgicheskiy institut i Dnepropetrovskiy  
staleplavil'nyy zavod vysokokachestvernykh i spetsial'nykh  
staley.  
(Electric furnaces—Equipment and supplies)  
(Remote control)

PEREKI, A.S.; SVIRIDENKO, L.F.

New source of quartz-feldspar raw materials in Karelia. Stek. i  
ker. 22 no.4:10-11 Ap '65. (MIRA 18:5)

1. Institut geologii, Petrozavodsk.

SVIRCHENKO, I.P.

Stages and structure of the rapakivi granite massif in the Salmi  
region. Sov.geol. 8 no.10:38-49 O '65.  
(MIRA 18:12)

I. Institut geologii, Petrozavodsk.

IVANOV, Stepan Stepanovich; IVANOV, A.P., inzh.-kapitan 2 ranga, red.;  
SVIRIDENKO, L.V., inzh.-kapitan 2 ranga, red.; BUKOVSKAYA, N.A.,  
tekhn. red.

[The submarine] Podvodnaia lodka. Moskva, Voen.izd-vo M-va obor.  
(MIRA 14:12)  
SSSR, 1961. 116 p. (Submarine boats)

SERGIYEV, P.G.; NABOKOV, V.A.; LARYUKHIN, M.A.; SVIRIDENKO, M.A.

A knapsack sprayer developed by P.G. Sergiev and V.M. Nabokov  
("Serna-4"). Med.paraz. i paraz.bol. 27 no.6:693-695 H-D '58.  
(MIRA 12:2)

1. Iz sektora profilaktiki infektsiy Instituta malyarii, meditsinskoy parazitologii i gel'mintologii Ministerstva zdravookhraneniya SSSR (dir. instituta - prof. P.G. Sergiyev, zav. sektorom - prof. V.A. Nabokov).

(INSECTICIDES,  
portable sprayer (Rus))

NABOKOV, V.A.; MITROFANOV, A.M.; SVIRIDENKO, N.A.

Modernized disinfecting apparatus of the LSD type and results of  
testing it. Med.paraz.i paraz.bol. no.3:318-322 '61. (MIRA 14:9)

1. Iz otdela entomotoksikologii i dezinsektcii Instituta medi-  
tsinskoy parazitologii i tropicheskoy meditsiny imeni Ye.I.  
Martsinovskogo Ministerstva zdravookhraneniya SSSR (dir. instituta -  
prof. P.G. Sergiyev, zav. otdelom - prof. V.A. Nabokov).  
(DISINFECTION AND DISINFECTANTS--EQUIPMENT AND SUPPLIES)

SVIRIDENKO, N., inzh.

Is everything all right in the organization of correspondence  
courses? Mias.ind.SSSR 31 no.2:35 '60. (MIRA 13:8)

1. Minskij myusotrest.  
(Moscow--Food industry--Study and teaching)

ACC NR: AP6021792

(A, N)

SOURCE CODE: UR/0413/66/000/012/0057/0057

INVENTORS: Gavrilov, I. V.; Sviridenko, N. N.; Trubetskoy, L. V.

ORG: none

TITLE: A device for the grid protection of an ion converter. Class 21, No. 182793

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 12, 1966, 57

TOPIC TAGS: ionization detector, electron tube grid, electronic circuit

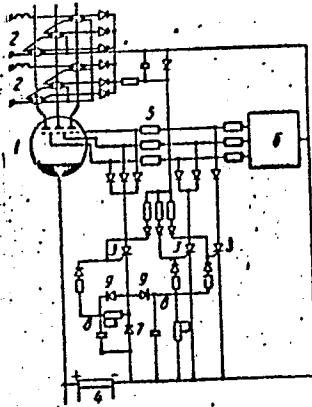
ABSTRACT: This Author Certificate presents a device for the grid protection of an ion converter with automatic repetitive triggering. The device contains thyristors and includes sensing elements of the arcing back- and overload-sensing gauges using magnetic elements. The design increases the reliability and response time of the device. Of its three thyristors, one is connected through separating diodes between the converter grids and the negative terminal of the bias voltage source (see Fig. 1). Two other thyristors are connected by anodes to the converter grids through separating diodes and grid resistances. These two thyristors are connected by the cathodes to the zero output of the grid control system. A stabililator tube is included in the cathode circuit of the first thyristor. Two delay elements (RC circuits) are connected between the anode and cathode of the stabililator tube. The effective resistances of the RC circuits are regulated and are shunted by diodes. The diodes are connected by the anodes to the cathodes of the stabililator tube and the thyristors. These diodes

UDC: 621.316.9:621.314.58

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ACC NR:  
AP6021792

Fig. 1. 1 - ion converter; 2 - sensing element;  
3 - thyristors; 4 - bias voltage source;  
5 - grid resistances; 6 - grid control  
system; 7 - stabililtron tube; 8 - delay  
elements; 9 - diodes



are connected by cathodes to the common points of the capacitors and resistances of the RC circuits. The control electrode of the first thyristor is connected through a diode and resistance to the common point of one RC circuit. The control electrodes of the other two thyristors are connected to the common point of the other circuits.  
Orig. art. has: 1 figure.

SUB CODE: 09, 14/ SUBM DATE: 28Apr65

Carc 2/2

88693

9.2000 (1001, 1024, 1331)

S/058/60/090/010/002/014  
A001/A001

Translation from: Referativnyy zhurnal, Fizika, 1960, No. 10, pp. 251-252, # 26995

AUTHORS: Kolomoytsev, F.I., Yakunin, A.Ya., Sviridenko, O.N.

TITLE: Measurements of Electromotive Forces Induced in Dielectrics Irradiated by X-Rays

PERIODICAL: Nauchn. zap. Dnepropetr. un-t, 1957, Vol. 72, pp. 3 - 6

TEXT: The authors measured emf  $\mathcal{E}$  induced in polyethylene insulation by X-ray irradiation (voltage in a X-ray tube was 48 kv, current was 12 ma). The temperature course of emf was established within the range of temperatures from  $-30^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$ ; it obeys the law:  $\mathcal{E} = A \exp(u/kT)$ , where  $u = 0.5$  ev,  $A = 1.7 \times 10^{-7}$  v is a constant. At a temperature of  $-30^{\circ}\text{C}$  the  $\mathcal{E}$ -value attains  $\sim 10^3$  v. The temperature dependence of polyethylene electric conductivity was measured for the cases when an external voltage is of the same or the opposite sign to that of induced  $\mathcal{E}$ , as well as the temperature dependence of dark electrical conductivity. It follows

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S/058/60/000/010/002/01<sup>4</sup>  
A001/A001

✓

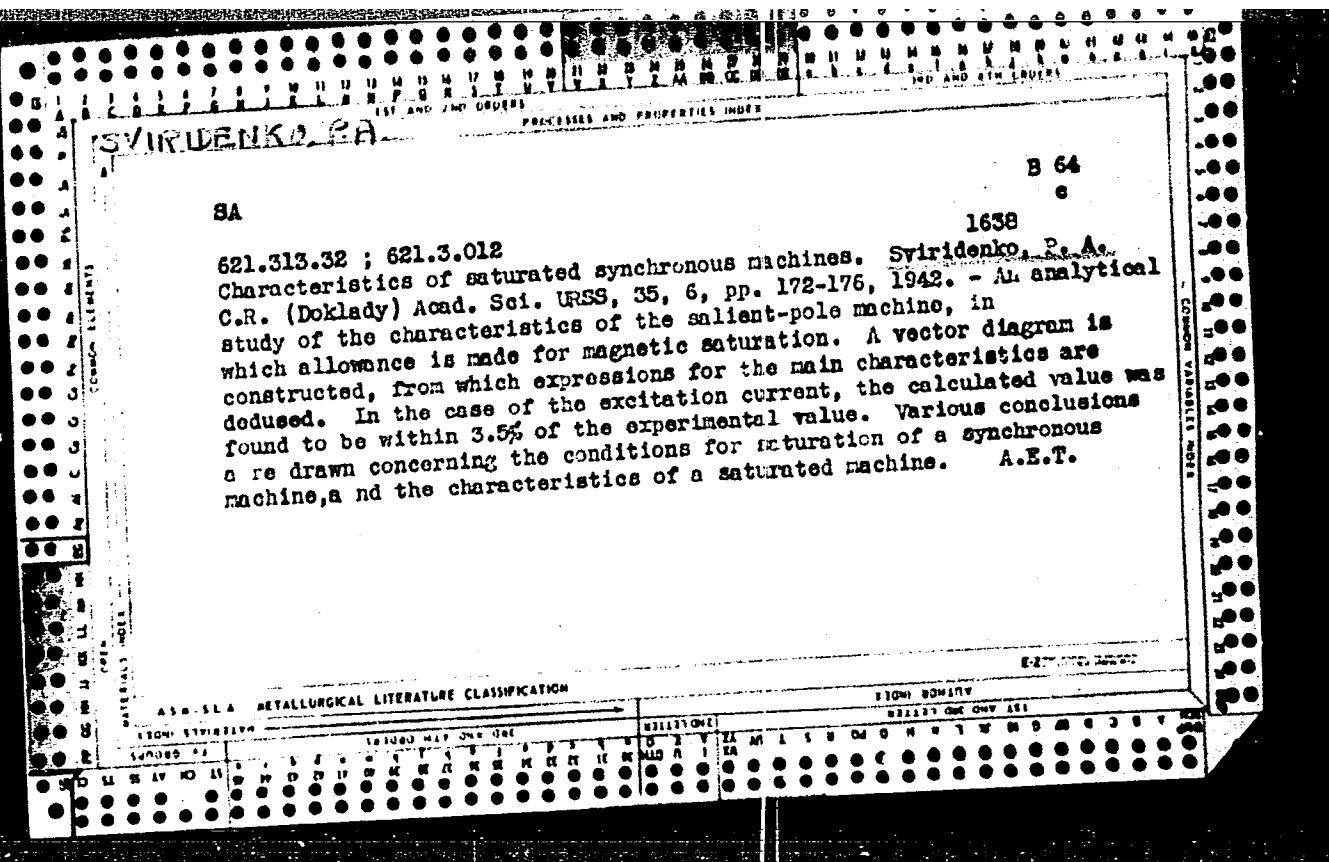
Measurements of Electromotive Forces Induced in Dielectrics Irradiated by X-Rays

from the slope of the curves that the activation energy of dark carriers is higher than that of the induced ones. All the curves blend with the rising temperature, which indicates the lowering of the excitation effect at high temperatures.

A.Zh.

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2



SVIRIDENKO, P.A.

SHENFER, KLAUDII IPPOLITOVICH, and P.A. SVIRIDENKO

Rekuperatsiia energii aviatsionnykh dvigatelei pri ikh ispytanii. (Akademiia Nauk SSSR. Izvestiia. Otdelenie tekhnicheskikh nauk, 1943, no. 5-6, p. 29-36, tables, diagrs.)

Title tr.: Energy recovery from aircraft engines in bench tests.

AS262.A6244 1943

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress,  
1955

SVIRIDENKO, P. A.

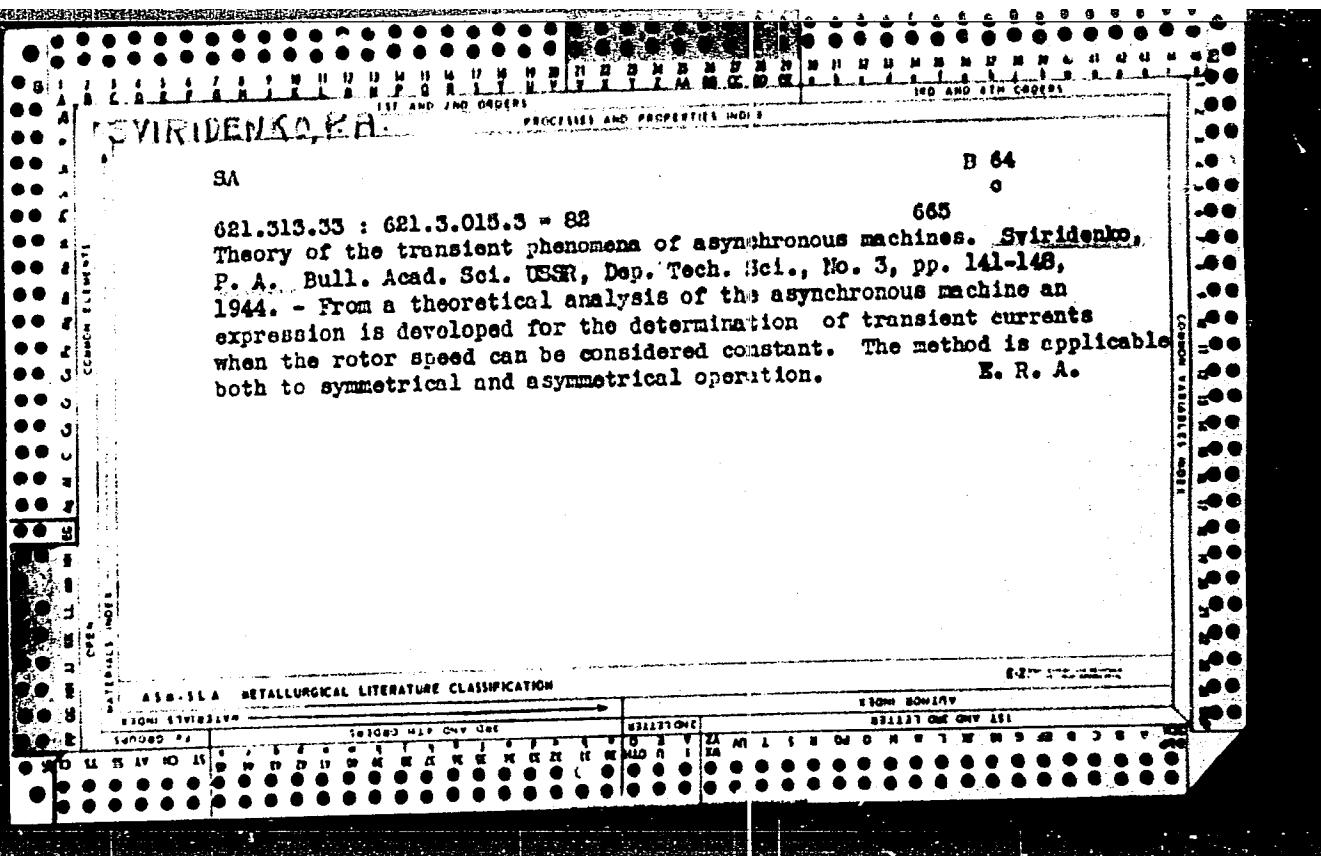
"Utilization of Energy of Internal Combustion Engines in Their Testing,"  
Dokl. AN SSSR, 39, No.9, 1943

Energetics Inst. im. Krzhizhinovskiy, AS USSR

SVIRIDENKO, P. A.

"Analysis of Transients in a Brush-Sifting A.C. Machine," Dokl. AN SSSR,  
42, No 3. 1,2, 1943

Energetics Inst. im. Krzhizhinskii, AS USSR



SVIRIDENKO, P. A.

"Stable Speeds of Rotation of an Asynchronous Machine With Single-Phase Stator and Rotor," Dokl. AN SSSR, 46, No.1, 1945

Energetics Inst. im. Krzhizhинovskiy, AS USSR

SVIRIDENKO, P. A.

"Substitution Diagrams for Transient Regimes of Asynchronous Electric Machines,"  
Dokl. AN SSSR, 48, No.6, 1945.

Energetics Inst. im. Krzhizhinovskiy, AS USSR

SVIRIDENKO, P.A.

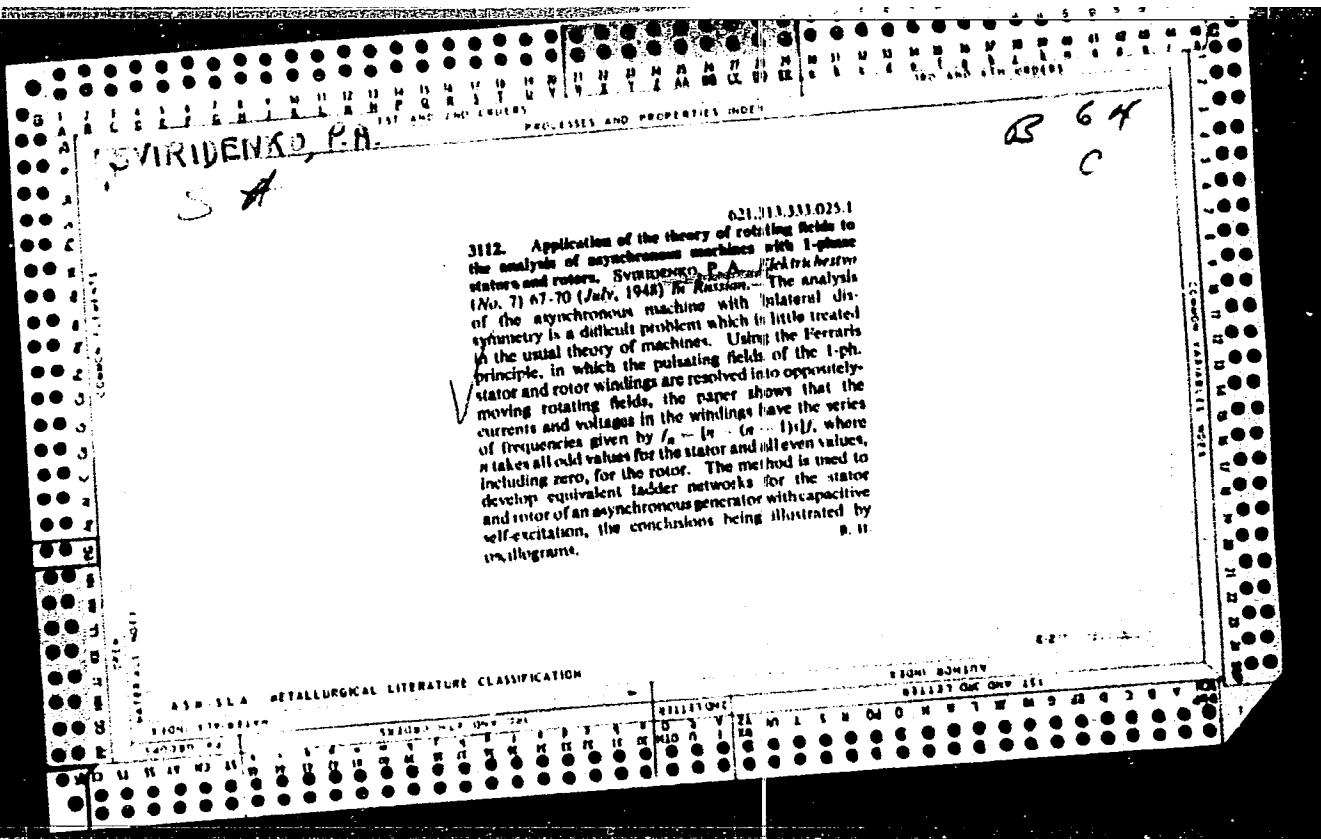
SVIRIDENKO, P. A.

Sviridenko, P. A. defended his Doctor's dissertation in the Power Engineering Institute im Krzhizhanovskiy, USSR, on 14 March 1946, for the academic degree of Doctor of Technical Sciences.

Dissertation: "Operating Conditions of Induction Machines with Variable Parameters". Resume: A circuit is given for a cascade induction generator to generate power for a network at constant voltage and frequency when the speed of the prime mover varies.

Official Opponents: Profs. D. A. Gorodskiy, Yu. S. Chechet, and A. N. Larionov (all Doctors of Technical Sciences).

SO: Elektrichestvo, No. 7, Moscow, August 1953, pp 87-92 (W/29844, 16 Apr 54)



NIKITIN, Gennadiy Mikhaylovich; SVIRIDENKO, P.A., prof., doktor tekhn.  
nauk, retsenzent; MURATOV, I.I., dotsent, kand.tekhn.nauk,  
retsenzent; AL'TSHULLER, T.S., red.; VOLCHOK, K.M., tekhn.red.

[Electric drives for ship machinery] Sudovye elektroprivody.  
Leningrad, Izd-vo "Techno transport," Leningr. otd-nie, 1960.  
395 p. (MIRA 13:?)

(Ships--Equipment and supplies)  
(Electricity on ships)

SVIRIDENKO, P.A., doktor tekhn.nauk, prof.

Problems in the theory of an asynchronous machine with a periodically varying internal induction. Nauch.trudy MTILP no.18:216-223 '60.  
(MIRA 15:2)

1. Kafedra elektrotekhniki Moskovskogo tekhnologicheskogo instituta  
legkoy promyshlennosti. (Electric machinery)

SVIRIDENKO, P.A., doktor tekhn.nauk, prof.

Asynchronous single-phase condenser generator. Nauch.trudy  
MTILP no.23:269-277 '61. (MIRA 15:9)

1. Kafedra elektrotehniki Moskovskogo tekhnologicheskogo  
instituta legkoy promyshlennosti.  
(Electric generators)

SVIRIDENKO, Petr Alekseyevich, doktor tekhn.nauk, prof.

Methods for regulating the angular velocity of electric motors.

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